

## WHAT IS CLAIMED IS:

## 1. A radiographic apparatus comprising:

a substrate;

a conversion portion having a plurality of first  
5 semiconductor conversion devices that are arranged on  
said substrate in a matrix to convert radiation into an  
electrical signal, and switching devices that are  
connected to each of said plurality of first  
semiconductor conversion devices;

10 a plurality of second semiconductor conversion  
devices arranged on said substrate to convert radiation  
into an electrical signal to detect irradiation of  
radiation incident on said conversion portion; and

wiring lines connected to each of said plurality  
15 of first semiconductor conversion devices, and  
connected to a plurality of printed wiring boards,

wherein said second semiconductor conversion  
devices are collectively arranged in a region where  
said first semiconductor conversion devices which are  
20 connected to at least one specific printed wiring board  
selected from the plurality of printed wiring boards  
are collectively arranged.

## 2. The apparatus according to claim 1, wherein

control wiring lines for controlling an operation  
25 of said switching devices and signal lines for  
transmitting signals output from said first  
semiconductor conversion devices through said switching

devices are arranged in said conversion portion to be perpendicular to each other, and

the specific printed wiring board is a printed wiring board to which the signal lines are connected.

5 3. The apparatus according to claim 2, wherein the printed wiring boards to which the signal lines are connected are arranged in equal numbers on two opposing sides of said substrate while sandwiching said conversion portion.

10 4. The apparatus according to claim 3, wherein when said first semiconductor conversion devices are divided into two groups including the same numbers of first semiconductor conversion devices by a boundary line parallel to the two sides, said second semiconductor  
15 conversion devices are arranged in line symmetry about the boundary line serving as an axis of symmetry.

5. The apparatus according to claim 1, wherein  
control wiring lines for controlling an operation  
of said switching devices and signal lines for  
20 transmitting signals output from said first  
semiconductor conversion devices through said switching  
devices are arranged in said conversion portion to be perpendicular to each other, and

the specific printed wiring board is a printed  
25 wiring board to which the control wiring lines are connected.

6. The apparatus according to claim 5, wherein the

printed wiring boards to which the control wiring lines are connected are arranged in equal numbers on two opposing sides of said substrate while sandwiching said conversion portion.

5     7.     The apparatus according to claim 6, wherein when said first semiconductor conversion devices are divided into two groups including the same numbers of first semiconductor conversion devices by a boundary line parallel to the two sides, said second semiconductor  
10    conversion devices are arranged in line symmetry about the boundary line serving as an axis of symmetry.

8.     A radiographic system comprising:  
          a radiation source for generating radiation;  
          a radiation detection apparatus of claim 1 for  
15    converting the radiation incident from said radiation source into an electrical signal;  
          an image processor for image-processing the electrical signal output from said radiation detection apparatus; and  
20           a display for displaying the electrical signal image-processed by said image processor.

9.     The system according to claim 8, wherein  
          the system further comprises a transmission processing unit arranged to transmit the electrical  
25    signal output from said image processor, and  
          said image processor outputs the signal to said display through said transmission processing unit.